

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Patent Application No. 10/078,702

REMARKS

Claims 1-20 are all the claims pending in the application. Claim 9 has been amended. Claim 21 has been added. It is believed and intended that no new matter is added by this Amendment. Reconsideration and allowance of all claims are respectfully requested in view of the following remarks.

Drawing Objections

The Examiner objected to the drawings as not including reference numeral 155 in Fig. 4. Reference numeral 155 identifies the center of gravity of the plate 150 and the specification has been amended to include this numeral.

Specification Objections

The Examiner objected to the Abstract of the Disclosure. A corrected Abstract is submitted herewith.

Claim Objections

The Examiner objected to Claim 9 as failing to properly further limit the structure of the parent Claim 1. Claim 9 has been amended to limit more clearly the claimed structure. The Examiner is requested to provide further detail on desired changes if the present amendment is not operative to overcome the present rejection.

Claim Rejections under 35 U.S.C. § 102

The Examiner rejected Claims 1-2, 8-10, 12-13, and 19 under 35 U.S.C. § 102(b) as being anticipated by Japanese Patent Document JP 2000-112141 A, to Inoue et al. (hereafter referenced as JP '141). The below remarks concerning JP '141 are based solely upon the drawings and partial English translation provided by the Examiner.

The present application relates to a mechanism for correcting unbalance of a rotor that occurs when leading and trailing edges of a sheet member are held on a peripheral surface of the

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rotor and the rotor is rotated (page 1, lines 1-4). The rotor includes a chuck device for pressing a leading edge and a trailing edge of the sheet member against the peripheral surface of a drum body. The chuck device includes a first chuck and a second chuck and has a first mode, in which the first chuck is attached to the drum body and the second chuck is apart from the drum body, and a second mode, in which both the first and second chucks are attached to the drum body. A main balancer is attached to the drum body and has a first relative positional relation with the first chuck. A sub-balancer is attached to the drum body and having a second relative positional relation with the second chuck in the second mode. The main balancer and the sub-balancer increase unbalance of the rotor in the first mode and reduce unbalance of the rotor in the second mode. (Page 5, lines 6-20.)

JP '141 discloses a mounting arrangement of a counter weight which attaches the counter weight for adjusting the equilibrium state at the time of rotation of the drawing equipment and the drum which draw to sensitive material, such as a lithographic plate with which the drum was equipped (paragraph 0001).

JP '141 does not disclose a sub-balancer attached to the rotor body and having a second relative positional relation with the second chuck in the second mode, as claimed in the present application. The second relative positional relation of the claimed invention includes a set angle between the sub-balancer and the second chuck, at which unbalance can be effectively and uniformly corrected over the whole area within the movement range of the second chuck (page 34, lines 22-25). In contrast, the JP '141 device is similar to the conventional device mentioned in lines 7-9 of page 34 wherein the weight and position of the balancer is adjusted each time the size of the printing plate is changed.

Additionally, the Examiner maintains that the JP '141 main balancer and sub-balancer would inherently increase the unbalance of the rotor in the first mode (when only the first chuck is attached to the rotor body). However, paragraph 0051 of the provided JP '141 translation states that "...the balance for a fixed clamp -- the member is attached this balance for a fixed clamp -- the member is formed in weight almost equal to the fixed clamp it prevents that produce the centrifugal force which balances with the centrifugal force of the fixed clamp..." Therefore, there is no unbalance of the JP '141 rotor in the first mode, the JP '141 sub-balancer is not

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attached to the rotor body nor does it have a second relative positional relation with the second chuck in the second mode.

Finally, the Examiner asserts that JP '141 has a first mode in which the second chuck 5, 50, is apart from the rotor body. The Applicant must object to this characterization, as JP '141 merely states that the move clamp 5 of JP '141 is "formed possible [movement of on the peripheral face of the recording drum 1]" (sic), not that the movable clamp is ever apart from the recording drum (paragraph 0051). JP '141 therefore does not include a first mode, in which the second chuck is apart from the rotor body, as claimed in the present application. For at least the above reasons, JP '141 does not anticipate the claimed invention.

The Examiner also rejected Claims 1-2, 8-10, 12-13, and 19 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,505,142, to Inoue et al. (hereafter referenced as '142). The Applicant notes that '142 lists JP 10-325116 as one of the priority applications, and this application corresponds to the JP '141 publication.

'142 discloses annular grooves being formed on both end surfaces of a recording drum to be rotated. Two balance weights are disposed inside each of the annular grooves. The balance weight is composed of a magnet, and is attracted to the end surface of the recording drum by its magnetic force. The two balance weights are arranged at a predetermined attaching angle such that an unbalance force caused by centrifugal forces developed by a plate and a movable clamp, for example, is canceled. Every time the size and the mass of the plate are changed, the positions of the two balance weights are adjusted, so that forced vibration in the recording drum is restrained. (Abstract.) A fixing clamp for attaching the plate is fixed to an outer peripheral surface of the recording drum (col. 11, lines 15-18). A fixing clamp balance member is attached to the outer peripheral surface of the recording drum on the opposite side of the fixing clamp. The fixing clamp balance member is formed so as to have an approximately equal weight to that of the fixing clamp. (Col. 11, lines 22-26).

'142 does not disclose a sub-balancer attached to the rotor body and having a second relative positional relation with the second chuck in the second mode, as claimed in the present application. The second relative positional relation of the claimed invention includes a set angle between the sub-balancer and the second chuck, at which unbalance can be effectively and

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uniformly corrected over the whole area within the movement range of the second chuck (page 34, lines 22-25). In contrast, the '142 device is similar to the conventional device mentioned in lines 7-9 of page 34 wherein the weight and position of the balancer is adjusted each time the size of the printing plate is changed.

Additionally, the Examiner maintains that the '142 main balancer and sub-balancer would inherently increase the unbalance of the rotor in the first mode (when only the first chuck is attached to the rotor body). However, lines 26-30 of col. 11 of '142 state that "[t]he fixing clamp balance member develops a centrifugal force which is balanced with a centrifugal force developed by the fixing clamp at the time of rotating the recording drum, thereby preventing an unbalance force from being produced." Therefore, there is no unbalance of the '142 rotor in the first mode, the '142 sub-balancer is not attached to the rotor body nor does it have a second relative positional relation with the second chuck in the second mode.

Finally, the Examiner asserts that '142 has a first mode in which the second chuck 5, 50, is apart from the rotor body. The Applicant must object to this characterization, as '142 merely states that the movable clamp 5 of '142 is movable on the outer peripheral surface of the recording drum, not that the movable clamp is ever apart from the recording drum (col. 11, lines 14-22). '142 therefore does not include a first mode, in which the second chuck is apart from the rotor body, as claimed in the present application. For at least the above reasons, '142 does not anticipate the claimed invention.

Since both JP '141 and '142 are deficient references, at least Claims 1 and 12 are not anticipated by the prior art as applied by the Examiner. Further, Claims 2, 8-10, 13, and 19 each depend upon one of Claims 1 and 12 and thus are patentable for the reasons set forth above based on this dependency as well as the recitations set forth therein. Thus, the Examiner is respectfully requested to withdraw the rejections of Claims 1-2, 8-10, 12-13, and 19 under 35 U.S.C. § 102.

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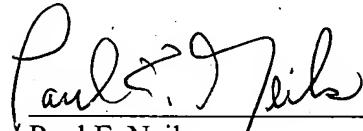
Conclusion

The Applicant gratefully acknowledges the Examiner's indication that Claims 3-7, 11, 14-18, and 20 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and prays for postponement of this requirement until such time as the Examiner has reviewed and commented upon the instant amendments and remarks.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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